



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/575,946	04/13/2006	Eugen Komarek	1006/0145PUS1	7077
60601 7590 10/06/2010 Muncy, Geissler, Olds & Lowe, PLLC 4000 Legato Road Suite 310 FAIRFAX, VA 22033				
EXAMINER FORD, JOHN K				
ART UNIT		PAPER NUMBER		
3784				
MAIL DATE		DELIVERY MODE		
10/06/2010		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/575,946

**Applicant(s)**

KOMAREK ET AL.

**Examiner**

John K. Ford

**Art Unit**

3744

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 June 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-9 and 11-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 and 11-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 February 2010 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/06)  
Paper No(s)/Mail Date 2/23/10, 2/25/10, 9/17/10
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

Applicant's response of 21 June 2010 has been carefully considered. With the broadening of claim 1 in the 22 February 2010 amendment (to remove the supplemental heater limitation) it appeared to the examiner that applicant was trying to "cover" in broadened claim 1 the un-illustrated variants disclosed on page 6, lines 14-22 of applicant's specification (where the supplemental heater is removed and other un-illustrated structure is substituted for that supplemental heater). Counsel has taken a position that applicant cannot be required to illustrate the other un-illustrated structure (disclosed page 6, line 14-22) which is substituted for that supplemental heater when the supplemental heater is not present. In view of the adamant refusal to do so and the attendant waste of examining time dealing with this issue, the examiner simply withdraws the requirement here.

Contrary to counsel's remarks element 5, by disclosure, is a heater and element 6, by disclosure, is a supplemental heater, not simply a heater. Furthermore, the examiner is confused by counsel's assertions that a drawing correction to illustrate what is disclosed on page 6, lines 14-22 is tantamount to requiring applicant to illustrate "every physical structure that might infringe the claims." The examiner has re-read page 6, lines 14-22 many times now and is at a loss to understand how a requirement to illustrate what is disclosed there could be construed as requiring applicant to illustrate "every physical structure that might infringe the claims." Just because a generic claim (such as claim 1) does not recite every element of a disclosed embodiment does not make a requirement to illustrate a particular embodiment wrong. Indeed if it is part of

the original written description and can be relied upon by a court to interpret the scope of a generic claim, it is not deemed to place a significant burden on an applicant to illustrate it, certainly not tantamount to requiring applicant to illustrate "every physical structure that might infringe the claims." Nonetheless, illustrated or not, it is part of the disclosure and that fact does not change whether or not it illustrated. Again the requirement is withdrawn.

On the issue of the meaning of "overlap", counsel has argued that the word "overlap" in the claims is descriptive of the dividing element 16 being received in the two arms of the "U-shaped end of dividing wall 8" and therefore the "arms of the U-shaped end of the dividing wall 8 overlap the end of the dividing element 16" according to counsel. However claim 1, as understood by the examiner requires that the dividing element (16, as discussed by counsel on page 3 of the 21 June 2010 communication) to overlap a dividing wall 8, the exact opposite of what counsel describes in his remarks. It is respectfully submitted that the examiner is justifiably confused by this "overlap" limitation even with counsel's supplemental explanation.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-9 and 11-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is unclear to the examiner what the nature of the "overlap" limitation is. At some points it appears that the part that is specified to overlap another is, in fact, overlapped by that other part. For example, on the issue of the meaning of "overlap", counsel (in the 21 June 2010 response) has argued that the word "overlap" in the claims is descriptive of the dividing element 16 being received in the two arms of the "U-shaped end of dividing wall 8" and therefore the "arms of the U-shaped end of the dividing wall 8 overlap the end of the dividing element 16" according to counsel. However claim 1, as understood by the examiner requires that the dividing element (16, as discussed by counsel on page 3 of the 21 June 2010 communication) to overlap a dividing wall 8, the exact opposite of what counsel describes in his remarks. It is respectfully submitted that the examiner is justifiably confused by this "overlap" limitation even with counsel's supplemental explanation.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 3, 9 and 11 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over JP 10-29424.

A multi-zone air conditioner is shown. A control element (13a and/or 13b) is shown. A vaporizer (11) is shown. A heater (12) is shown. An air guide housing (5) is shown. Dividing walls (17, 18 and 19) are shown. At least one dividing element (27, 28 in Figure 7, 20a in Figure 5, 20a in Figure 6, 20a in Figure 2) for the sealed division of the individual zones is shown. This dividing element construction is taught to be used on the heater (as well as the vaporizer) in paragraph 0043 of the specification of JP 10-29424, which translation is readily available to applicants at the JPO website and is not being provided here. The dividing element contacts and overlaps the dividing wall and/or at least one of the dividing elements of a component adjacent to the heater. A portion of the air guide housing (5) in the vicinity of the heater 12 forms a frame for the dividing element by virtue of the attachment of the dividing element to the air guide housing.

To the extent that it is necessary to support a rejection under 35 USC 103(a) it would have been the epitome of obviousness to have used the dividing element construction (27, 28 in Figure 7, 20a in Figure 5, 20a in Figure 6, 20a in Figure 2) shown on the vaporizer 11 on the heater 12 instead as explicitly taught by paragraph 0043 of the specification of JP 10-29424. Such a modification would advantageously suppress the mixture of air between the separate zone ducts (10a, 10b). It is however believed

by the examiner that the explicit disclosure in paragraph 0043 of the specification of JP 10-29424 makes the reference proper under 35 USC 102(b).

Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP '424 as applied to claim 1, and further in view of Figure 4 of DE 19919132.

While JP '424 uses a vertical dividing wall formed by elements 17, 18 and 19 to form a two zone system (with two control elements 13a and 13b), it would have been obvious to one of ordinary to have added a horizontal wall to the aforementioned vertical wall formed by elements 17, 18 and 19 to form a four zone system (with four control elements) as taught by DE '132 in Figure 4 (see cross-shaped dividing walls formed by elements 26-29 and 24-25 with four control elements 20-23). Such a modification would advantageously allow for improved air conditioning control of the compartment by permitting the front and rear seat occupants on both the driver and passenger side of the vehicle to individually control their respective comfort levels with respect to temperature. As well, the dividing elements are enclosed in a rectangular peripheral frame in Figure 4 of DE '132.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP 10-29424 as applied to claim 1 above, and further in view of JP 2002-310453.

JP '424 uses a vertical dividing wall formed by elements 17, 18 and 19 to form a two zone system. To have formed a vertical dividing wall composed of elements 17, 18 and 19 as individual frame members capable of being inserted into the air guide housing of JP '424 would have been obvious to one of ordinary skill in the art as taught by Figure 3 of JP '453 where a vertical dividing wall 15 is attached to a rectangular frame 12. Such a construction would advantageously allow for easier assembly of the air conditioner unit.

Claims 4-7, 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 10-29424 as applied to claim 1 above, and further in view of any one of JP 11-198629 or JP 10-324145 or JP 11-5427 or FR 275492 or Groemmer (USP 6,581,678) or DE 19919132.

JP '424 does not show a supplemental heater adjacent to the main heater 12. These supplemental heaters are extremely well known as evidenced by JP 11-198629 (supplemental heater 16) or JP 10-324145 (supplemental heater 16) or JP 11-5427 (supplemental heater 16) or FR 275492 (supplemental heater 20) or Groemmer, USP 6,581,678 (supplemental heater 24) or DE 19919132 (supplemental heater 40).

Regarding claim 4, in view of any one or all of the aforementioned references, it would have been obvious to one of ordinary skill in the art to have incorporated a supplemental heater adjacent to the main heater 12 of JP '424 to advantageously



improve heating particularly during the start-up phase of the vehicle. That multiple references are used to support the notoriety of some feature is supported by case law. See, for example, In re Gorman 18 USPQ2d 1885 (Fed Cir 1991).

Regarding claim 13, PTC heaters are well known to the assignee (Behr) of the current application as evidenced by Groemmer, also assigned to Behr. PTC supplemental heaters are also disclosed by FR '492, JP '629, JP '145, JP '427 and DE '132. In view of any one or all of these references, it would have been obvious to have made the supplemental heater adjacent to the main heater 12 of JP '424 as a PTC type to advantageously improve heating without overheating problems particularly during the start-up phase of the vehicle.

Regarding claims 5 and 12, JP '424 already teaches duplicating at least one dividing element (27, 28 in Figure 7, 20a in Figure 5, 20a in Figure 6, 20a in Figure 2) for the sealed division of the individual zones on each of vaporizer heat exchanger 11 and the heater heat exchanger 12. It therefore would have been obvious to have duplicated the same parts for the additional supplemental heater when adding such a supplemental heater to JP '424 as taught by any one of all of JP 11-198629 or JP 10-324145 or JP 11-5427 or FR 275492 or Groemmer (USP 6,581,678) or DE 19919132 .

Regarding claim 7, JP '629 discloses a heater 13 which has thickness in the air flow direction that is less than the thickness of the tanks 13a and 13b measured in the

same direction. This difference in the respective thicknesses forms an "undercut" and the dividing walls 15b and 15c of JP '629 bridges into this undercut. To have formed the heater core 12 of JP '424 with the thickness of the tanks 31 and 33 measured in the air flow direction to be greater than the thickness of the heater core in the airflow direction would have been obvious to one of ordinary skill in the art since this is conventional construction that allows for the tubes to be easily inserted in the header plates.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over the prior art as applied to claim 5 above, and further in view of DE 10002578.

DE '578 fairly teaches clipping flow directing structures to tubes of a heat exchanger. To have clipped the elements 27 and 28 of JP '424 to the heat exchanger tube 20a would have been obvious to one of ordinary skill in the art in the manner taught by DE '578 in Figure 4. Such a modification would advantageously facilitate assembly and disassembly of the device.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John K. Ford whose telephone number is 571-272-4911. The examiner can normally be reached on Mon.-Fri. 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cheryl Tyler can be reached on 571-272-4834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/John K. Ford/  
Primary Examiner, Art Unit 3744